

Appendix D. The VOMRS Configuration File

The configuration file is written in XML. XML is a configurable, extensible language with syntax similar to HTML. XML is case-sensitive. XML can be used for documentation, but it is more versatile than just that. In particular, the VOMRS code, written in Java, is designed to read in a configuration file supplied in XML format. Elements in XML are analogous to tags in HTML; they represent structures or desired behavior. Attributes define properties of elements. Elements are used with attributes in XML the same way as tags are in HTML:

```
<ELEMENT ATTRIBUTE="value">data</ELEMENT>
```

The configuration file for VOMRS is provided in valid XML (as opposed to well formed XML). A file written in valid XML is based upon a document type definition (DTD) file. More information on XML and DTD files is given in the documentation for the Control Room Logbook product, at <http://computing.fnal.gov/docs/products/crl/xmlintro.html>.

D.1 The VOMRS DTD File

In order to ensure the proper working of VOMRS, never edit the DTD file!

```
<!ELEMENT vomrs ( name , log | db | client ? | eventProcessor ? | web ? |
synchroNizer ? ) >
<!ELEMENT name ( #PCDATA ) >
<!ELEMENT log ( #PCDATA ) >
<!ELEMENT db ( port ?| dbname ?| driver ?| password ?| initCon ?| url ?|
wait ?| user ?| host ?| maxCon ? ) >
<!ELEMENT dbname ( #PCDATA ) >
<!ELEMENT driver ( #PCDATA ) >
<!ELEMENT password ( #PCDATA ) >
<!ELEMENT initCon ( #PCDATA ) >
<!ELEMENT wait ( #PCDATA ) >
<!ELEMENT user ( #PCDATA ) >
<!ELEMENT host ( #PCDATA ) >
<!ELEMENT maxCon ( #PCDATA ) >
<!ELEMENT client ( status | port ?| connectionTime . ) >
<!ELEMENT connectionTime ( #PCDATA ) >
<!ELEMENT eventProcessor ( status | mailCommand ?| from ?| updateTime ?|
url ? ) >
<!ELEMENT updateTime ( #PCDATA ) >
<!ELEMENT mailCommand ( #PCDATA ) > >
<!ELEMENT from ( #PCDATA ) >
<!ELEMENT synchroNizer ( status | gridProxyFile ? | syncTime ? |
socketSecureFactory ? | syncLevel ? | sslKey ? | vomsUrl | sslCAFiles ? |
sslCertfile ? ) >
```

```

<!ELEMENT gridProxyFile ( #PCDATA ) >
<!ELEMENT syncLevel ( #PCDATA ) >
<!ELEMENT syncTime ( #PCDATA )? >
<!ELEMENT sslCertfile ( #PCDATA ) >
<!ELEMENT sslCAFiles ( #PCDATA ) >
<!ELEMENT sslKey ( #PCDATA ) >
<!ELEMENT socketSecureFactory ( #PCDATA ) >
<!ELEMENT vomsUrl ( #PCDATA ) >
<!ELEMENT web ( log |inactiveInterval ? | gridResourceName ? |
gridUsageRules ? ) >
<!ELEMENT inactiveInterval ( #PCDATA ) >
<!ELEMENT gridResourceName ( #PCDATA ) >
<!ELEMENT gridUsageRules ( #PCDATA ) >
<!ELEMENT status ( #PCDATA ) >
<!ELEMENT port ( #PCDATA ) >
<!ELEMENT url ( #PCDATA ) >

```

D.2 A Sample Configuration File

The configuration file shown here is an example, written for the USCMS VO during the development and testing phases of the VOMRS product.

```

<?xml version='1.0'?>
<vomrs>
<name>USCMS</name>
!-- log configuration for vomrs server -->
<!!-- full path to the log properties file should be specified-->
<log>/opt/vomrs-1.0/var/etc/vomrs_uscms/log4j.properties</log>

<eventProcessor>
<!!-- EventProcessor is a thread of VOMRSServer responsible for handling event
notification -->
    <status>on</status>
    <mailCommand>/usr/sbin/sendmail</mailCommand>
    <!!-- web services url -->
    <url>https://shahzad.fnal.gov:8443/vo-USCMS/services/VOMRS?</url>
    <from>vomrs_uscms-admin</from>
    <updateTime>2</updateTime>
</eventProcessor>

<client>
<!!-- ClientIF is a thread of VOMRSServer responsible for handling client
requests -->
<!!--client is used for testing purposes -->
    <status>on</status>
    <!!-- listening port -->
    <port>14000</port>
    <!!-- connection timeouts in minutes -->
    <connectionTime>10</connectionTime>
</client>

<synchronizer>
<!!-- VOMS Synchronizer is a thread of VOMRSServer responsible for handling
voms database update -->
    <status>on</status>
    <!!-- the synchronization interval in minutes,
    <syncTime>10</syncTime>

```

```

        default is 10 minutes -->

        <!-- the synchronization level
        <syncLevel>0</syncLevel>
        default is "0 - Add Members", 1 - "Add Members/Delete Banned Members",
        2 - "Synchronize Members", 3- "Synchronize all",
        4 - "Event Driven synchronization" -->

<vomsUrl>https://shahzad.fnal.gov:8443/edg-voms-admin/uscms/services/VOMSAdmin<
/vomsU
rl>

        <!-- if axis.socketSecureFactory is not defined assumes this
        <socketSecureFactory>org.edg.security.trustmanager.axis.AxisSocketFacto
ry</socketSecureFactory>
        -->

        <!-- if sslCAFiles is not defined assumes this
        <sslCAFiles>/etc/grid-security/certificates/*.0</sslCAFiles>
        -->

        <!-- if running as root assume this as a default
        <sslKey>/etc/grid-security/hostkey.pem</sslKey>
        <sslCertfile>/etc/grid-security/hostcert.pem</sslCertfile>
        -->

        <!-- if running as a user assume this as a default
        <gridProxyFile>/tmp/x509up_u_uid</gridProxyFile>
        -->

</synchronizer>

<db>

        <!-- database connection -->

        <!-- if host is not defined assumes localhost
        <host>some_host</host>
        -->

        <!-- if port is not defined assumes 3306
        <port>3306</port>
        -->

        <!-- if user is not defined assumes uid that started server
        <user>user</user>
        -->

        <!-- if password is not defined assumes that the database is not
protected
        <password>changeit</password>
        -->

        <!-- if dbname is not defined assumes "test"
        <dbname>test</dbname>
        -->

        <!-- if url is not defined assumes "jdbc:mysql://"
        <url>jdbc:mysql://</url>
        -->

        <!-- if drivers is not defined assumes "org.gjt.mm.mysql.Driver"
        <driver>org.gjt.mm.mysql.Driver</driver>
        -->

```

```

        <!-- any of the parameters are below are related to connection pool
and could be omitted -->

<maxCon>10</maxCon>
<initCon>4</initCon>
<wait>true</wait>

</db>

<web>

<!-- Web UI parameters -->
<!-- full path to the log properties file should be specified-->
<log>/opt/vomrs-1.0/var/etc/vomrs_uscms/log4j_webui.properties</log>

<!-- time in seconds until session expires
     <inactiveInterval>600</inactiveInterval>
-->

<!-- name of organization that oversees all grid resources for this
VO -->

<gridResourceName>LCG</gridResourceName>

<!-- url location of usage rules for this organization -->
<gridUsageRules>https://edms.cern.ch/file/428036/LAST_RELEASED/LCG_Usag
e_Rules.pdf</gridUsageRules>

</web>

</vomrs>

```